TSGS#26(04)0736

Source: **SA1**

Title: **CR to 22.078 on regarding interworking between CAMEL and SCUDIF (Rel-7)**

Document for: **Approval**

Agenda Item: **7.1.3**

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-26	SP-040736	22.078	178	-	Rel-7	A	Interworking between CAMEL and SCUDIF	7.1.0	7.3.0	S1-040972

TSG-SA WG1 #26 **S1-040972**
Sophia Antipolis, France, 11 - 15 October 2004 **Agenda Item: 8**

CHANGE REQUEST

⌘ **22.078** **CR** **178** ⌘ **rev** **-** ⌘ Current version: **7.1.0** ⌘

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network **X**

Title:	⌘	**Interworking between CAMEL and SCUDIF**
Source:	⌘	SA1 (Ericsson)
Work item code:	⌘	SCUDIF
Date:	⌘	01/10/2004
Category:	⌘	A
Release:	⌘	Rel-7

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	SCUDIF interaction with CAMEL Call Party Handling (CPH) and CAMEL user interaction is undefined.
Summary of change:	⌘	It is proposed that CSE/SCP may create legs only when the call is known to be a speech call. The user interaction is also defined. In a multimedia phase or under uncertaintity UI shall not be connected. CAMEL warning tone and flexiple warning to can be ordered in ApplyCharging for a SCUDIF call. If the multimedia is used at the time when the tone timer expires then SSP shall not connect the tone.
Consequences if not approved:	⌘	Call Party Handling and CAMEL user interaction would cause problems in a SCUDIF call.

Clauses affected:	⌘	8, 21

Other specs affected:	⌘	Y	N		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	The present CR is a mirror CR for CR 171 (TS 22.078 Rel-5) and CR 172 (TS 22.078 Rel-6). In 3GPP Rel-7, the CSE has the capability to select between the preferred bearer service and the less preferred bearer service. That functionality was introduced by CR 168 and is included in TS 22.078 v7.1.0, section 1. Said functionality may need to be specified in further detail in TS 22.078; that shall be

done in a separate CR on TS 22.078 Rel-7.

-- First modified section --

8 Procedures for Call Party Handling

CPH procedures only apply to speech telephony (TS11) as defined in TS 22.003 [10]. For a SCUDIF call see clause 21.

CPH procedures apply to MO, MF, MT, VT and CSE initiated calls. If the served subscriber is involved in a CPH configuration controlled by her CSE, then any further MO or MT call setup request involving the served subscriber shall be handled by a separate relationship with the served subscriber's CSE. This new relationship may lead to the creation of a further CPH configuration for the served subscriber. The service logic for one CSE relationship is not necessarily aware of what is happening in another CSE relationship involving the same served subscriber.

It is not required to transfer a leg or a group of legs between separate CPH configurations.

Where service logic involves Call Party Handling procedures, the Service Interaction Indicators Two parameter should be used to manage interactions with Supplementary Services (CF, CD and MPTY for each call leg and ECT and HOLD for the served subscriber).

The CSE shall be able to add parties to, or remove parties from, the group. Each party in this group can communicate with all other parties in the group. The IPLMN/VPLMN shall support at least 6 parties (of which one may be a Specialised Resource Function) in a group.

If a control relationship exists, the CSE may order in-band user interaction with any held call party at any point during the active phase of the call leg.

Charging activities shall be possible during a CPH configuration as indicated in clause 15.

8.1 CPH procedures for an existing call

8.1.1 Creating additional parties in the call

The purpose of this procedure is to allow the CSE to create additional parties in a call at any point during that call. The CSE initiated call leg shall be created in the held state in the IPLMN/VPLMN of the served subscriber.

If a control relationship exists, it shall be possible for the CSE to instruct the IPLMN/VPLMN of the served subscriber to initiate a new call leg to an additional party. The new call leg shall form part of the existing CPH configuration.

If a CSE initiated new call leg is created within a CAMEL relationship for a mobile originated call (MO case) or for a mobile terminating call in the VPLMN (VT case), the CSE initiated new leg in the VPLMN shall be subject to the Outgoing Call Barring Supplementary Services and the Outgoing Operator Determined Barring categories. However the CSE shall be able to instruct the VPLMN to suppress the invocation for the new leg of conditional barring of outgoing calls by the call barring supplementary service and operator determined barring as indicated in subclause 18.8.

The CSE shall be able to instruct the IPLMN to suppress the triggering of terminating CAMEL-based services in the IPLMN for the additional party.

If the CSE sends a request to initiate a new call leg the events relating to unsuccessful call establishment and answer should be armed by the CSE to maintain a control relationship.

8.1.2 Placing an individual call party on hold

The purpose of this procedure is to allow the CSE to instruct the IPLMN/VPLMN to place an individual call party on hold.

The CSE may instruct the IPLMN/VPLMN to put a call party on hold at any point during the active phase of the call leg if a control relationship exists.

The CSE shall be able to instruct the IPLMN/VPLMN to send a notification towards the held party indicating that she has been placed on hold. The notification shall be a tone or an announcement.

NOTE: This procedure does not use the HOLD supplementary service, however the notification message sent to the MS may be the same as for the HOLD supplementary service. The CSE may use other procedures instead of, or as well as, instructing the IPLMN/VPLMN to send a tone or announcement to notify the held party that she has been placed on hold.

8.1.3 Releasing call parties

The purpose of this procedure is to allow the CSE to instruct the IPLMN/VPLMN to release an individual call party or all the call parties in a CPH configuration.

The CSE may instruct the IPLMN/VPLMN to release all the call parties in a CPH configuration at any point in a call if a control relationship exists.

The CSE may instruct the IPLMN/VPLMN to release an individual CSE-initiated call party at any point in a call if a control relationship exists.

If, at the initial service event, the CSE instructed the IPLMN/VPLMN not to route the call directly to the destination, then the CSE may instruct the IPLMN/VPLMN to release the calling party at any point in a call if a control relationship exists.

If, at the initial service event, the CSE instructed the IPLMN/VPLMN to proceed with the call as normal then the CSE may instruct the IPLMN/VPLMN to release the calling party or the called party during the active phase of the call only.

The release of the served subscriber shall not necessarily lead to the disconnection of the other parties in the CPH configuration.

8.1.4 Connecting an individual call party to the group

The purpose of this procedure is to allow the CSE to instruct the IPLMN/VPLMN to connect an individual call party to the group.

If, at the initial service event, the CSE instructed the IPLMN/VPLMN not to route the call leg directly to the destination, then the CSE may instruct the IPLMN/VPLMN to connect a separate held call party to the group at any point during the alerting and active phases of the call leg if a control relationship exists. The CSE may instruct the IPLMN/VPLMN to connect a held call party to the group also if the following conditions are met;

- a control relationship exists, and
- the original call state model in the target call segment is either in the Call set-up request procedure or Incoming call request procedure, and
- the original outgoing leg of the target call segment has been disconnected.

If, at the initial service event, the CSE instructed the IPLMN/VPLMN to proceed with the call as normal then the CSE may instruct the IPLMN/VPLMN to connect a held call party to the group at any point during the alerting and active phases of the call leg if a control relationship exists and at least one call leg in the group has reached the active phase.

If the CSE has initiated the call, it may instruct the IPLMN/VPLMN to connect another held call party to the group at any point during the alerting and active phases of the call leg.

The CSE shall be able to instruct the IPLMN/VPLMN to send a notification towards the previously held party indicating that she has been connected to the group. The CSE shall be able to instruct the IPLMN/VPLMN to send a notification towards the other party or parties in the group indicating that an additional party has been connected to the group. The notification shall be a tone or an announcement.

NOTE: The CSE may use other procedures instead of, or as well as, instructing the IPLMN/VPLMN to send a tone or announcement to notify the previously held party that she has been connected to the group. The same principle applies to the notification towards the other party or parties in the group.

8.2 Creating a new call

The purpose of this procedure is to allow the CSE to create a new call to the served subscriber.

It shall be possible for the CSE to instruct the IPLMN/VPLMN of the served subscriber to initiate a new call on behalf of the served subscriber. The IPLMN/VPLMN shall have the possibility to reject this request. The CSE shall be able to instruct the HPLMN to suppress the invocation of Incoming call barrings for a CSE initiated call.

The CSE shall be able to instruct the HPLMN to suppress the triggering of terminating CAMEL-based services in the VPLMN for the served subscriber.

The CSE shall be able to instruct the IPLMN to suppress the triggering of terminating CAMEL-based services in the IPLMN for the served subscriber.

If the CSE sends a request to initiate a call the events relating to unsuccessful call establishment and answer should be armed by the CSE to maintain a control relationship.

--Next modified section --

21 ~~Reserved clause~~Interactions with video call and SCUDIF call

The CSE may invoke CPH procedures only if one of the following conditions is fulfilled:

- The call has made fall-back to speech; Or,
- The preferred service is speech and the less preferred service is prevented.

The CSE may initiate user interaction or order in-band tone only if one of the following conditions is fulfilled:

- The preferred service is speech at the call establishment phase; Or,
- The selected service is speech at the call establishment phase or active phase of the call.

For a SCUDIF call the CAMEL warning tone and flexible tone may be ordered by the CSE. At the time of tone connection the VPLMN/IPLMN shall not connect the tone if the multimedia is currently being used.

--End of modifications --